

Features

Unregulated Converters

- Dual Output from a Single Input Rail
- Input/Output Isolation 1kVDC or 2kVDC
- Output/Output Isolation 1kVDC
- Power Sharing on Outputs
- UL94V-0 Package Material
- Optional Continuous Short Circuit Protected
- No External Components Required
- Efficiency to 85%

Description

The RUZ DC/DC converter offers two independent isolated outputs. Typical applications include multiple channel circuits where inter-channel isolation is also required. The /H option offers 2kVDC isolation between input and outputs. The /P option is with continuous short circuit protection on either or both outputs.

Selection Guide

Part Number	Input Voltage (VDC)	Output Voltage (V1VDC)	Output Voltage (V2VDC)	Output Current (mA)	Efficiency (%)	Max Capacitive Load ⁽¹⁾
RUZ-050505	5	5	5	200/200	70	470µF/470µF

xx = Input Voltage. Other input and output voltage combinations available on request.

* add Suffix "P" for Continuous Short Circuit Protection, e.g. RUZ-050505/P, RUZ-050505/H/P

Specifications (measured at $T_A = 25^\circ\text{C}$, nominal input voltage, full load and after warm-up)

Input Voltage Range		$\pm 10\%$
Output Voltage Accuracy		$\pm 5\%$
Line Voltage Regulation		1.2%/1% of V_{in} typ.
Load Voltage Regulation ((10% to 100% full load)		15% max.
Output Ripple and Noise (20MHz limited)		150mVp-p max.
Operating Frequency		20kHz min. / 50kHz typ. / 85kHz max.
Efficiency at Full Load		70% min. / 80% typ.
Minimum Load = 0%		Specifications valid for 10% minimum load only.
Isolation Voltage		(tested for 1 second) 1000VDC
Input/Output and Output/Output		(rated for 1 minute) 3200VAC / 60Hz
Isolation Voltage	H-suffix	(tested for 1 second) 2000VDC
Input/Output	H-suffix	(rated for 1 minute) 1000VAC / 60Hz
Output/Output		(tested for 1 second) 1000VDC
Isolation Capacitance		40pF min. / 120pF max.
Isolation Resistance		10 G Ω min.
Short Circuit Protection		1 Second
P-Suffix		Continuous
Operating Temperature Range (free air convection)		-40°C to +85°C (see Graph)
Storage Temperature Range		-55°C to +125°C
Relative Humidity		95% RH
Package Weight		2.8g
Packing Quantity		25 pcs per Tube
MTBF (+25°C)		using MIL-HDBK 217F 988 x 10 ³ hours
(+85°C)		using MIL-HDBK 217F 135 x 10 ³ hours

Detailed Information see Application Notes chapter "MTBF"

ECONOLINE

DC/DC-Converter

with 3 year Warranty



2 Watt

SIP7

Isolated

Dual Output

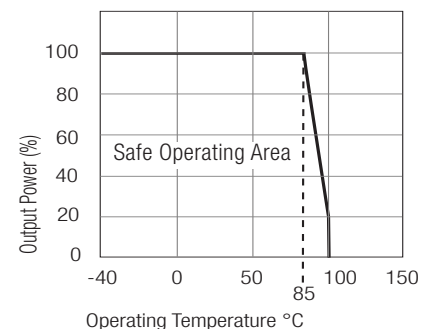


EN-60950-1 Certified

RUZ

Derating-Graph

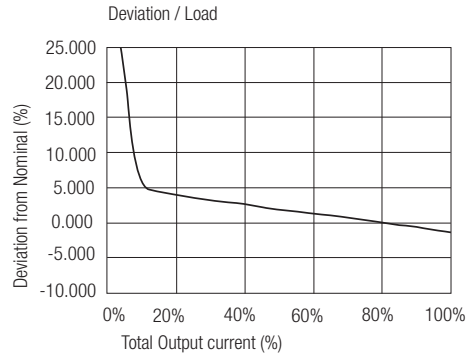
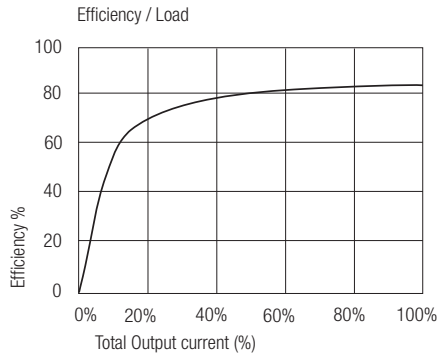
(Ambient Temperature)



Refer to Application Notes

www.recom-electronic.com

Typical Characteristics



Notes

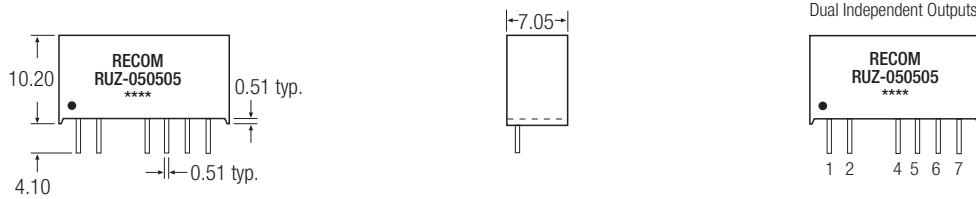
Note 1	Maximum capacitive load is defined as the capacitive load that will allow start up in under 1 second without damage to the converter.
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Certifications

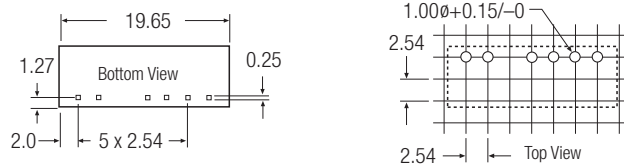
EN General Safety	Report: PS-R7219C1	EN60950-1:2001 + A11:2004
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Package Style and Pinning (mm)

7 PIN SIP Package



Recommended Footprint Details



Pin Connections

Pin #	Single
1	+Vin
2	-Vin
4	+Vout 1
5	-Vout 1
6	+Vout 2
7	-Vout 2

XX.X ± 0.5 mm
XX.XX ± 0.25 mm

Typical Application

